

***Remarks***

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 10-15, 17-22, 47, 59, 63-67, and 76-85 are pending in the application, with claims 10-12, 18, 20 and 47 being the independent claims. Claims 10-12, 18, 20-22 and 47 have been amended. Support for the claim amendments may be found in the original claims and throughout the specification (e.g, page 11, lines 22-23; page 15, lines 1-4; page 29, line 2; page 29, line 9) . Thus, no new matter is added by way of these amendments, and their entry is respectfully requested.

A request for continued examination (RCE) is being filed concurrently herewith. Therefore, the finality of the Office Action dated April 7, 2005 should be withdrawn, and the amendments and remarks set forth herein should be entered and considered. *See* 37 C.F.R. § 1.114(d).

Based on the above amendments and the following remarks, Applicants respectfully request that the Examiner reconsider and withdraw the outstanding rejections.

***I. Claim Rejections Under 35 U.S.C. § 102***

***A. Tyagi et al.***

Claims 10-15, 17, 20-22, 47, 59, 76, 78, 80, 81, 83 and 84 were rejected under 35 U.S.C. § 102(e) as being anticipated by Tyagi et al. (U.S. Patent No. 6,150,097) (Office Action, pages 3-4). The claims as amended recite that the oligonucleotides/primers are

labeled with only a single type of detectable label having the **same chemical structure**. In contrast, Tyagi *et al.* teach nucleic acid probes labeled with **two different** fluorescent chemical moieties (i.e., a pair of different chromophores). Thus, Tyagi *et al.* do not anticipate the present claims.

Applicants therefore request reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(e).

**B. Nazarenko**

Claims 10-15, 17-22, 47, 59, 66, 67, 76, 78, 80, 81, 83 and 84 were rejected under 35 U.S.C. § 102(b) as being anticipated by Nazarenko *et al.* *Nucl. Acids Res.* **25**:2516-2521 (1997) ("Nazarenko"). (Office Action, pages 5-6.). The claims as amended recite that the oligonucleotides/primers are labeled with only a single type of detectable label having the **same chemical structure**. In contrast, Nazarenko *et al.* teach nucleic acid probes labeled with **two different** detectable labels (i.e., a pair of different chromophores). Thus, Nazarenko does not anticipate the present claims.

Applicants therefore request reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(b).

**II. Claim Rejections Under 35 U.S.C. § 103(a)**

**A. Nazarenko *et al.***

Claims 63-65 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nazarenko *et al.* Office Action, pages 7-10. Applicants respectfully traverse the rejection.

Establishing *prima facie* obviousness requires a showing that each claim element is taught or suggested by the prior art. *See In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Specifically, establishing *prima facie* obviousness requires a showing that some combination of objective teachings in the art and/or knowledge available to one of skill in the art would have led that individual to arrive at the claimed invention. *See In re Fine*, 5 USPQ2d 1596,1598 (Fed. Cir. 1988). Moreover, establishing *prima facie* obviousness requires not only that such a combination of prior art teachings is possible, but also that the teachings would have 1) motivated the skilled artisan to make the combination to arrive at the claimed invention, and 2) suggested to the skilled artisan a reasonable likelihood of success in making and using the claimed invention. *See In re Dow Chem. Co.*, 837 F.2d 469, 473 (Fed. Cir. 1988). Absent a showing of such motivation and suggestion, *prima facie* obviousness is not established. *See Fine*, 5 USPQ2d at 1598.

The present independent claims recite that the oligonucleotides/primers are labeled with only a single type of detectable label having the **same chemical structure**. Claims 63-65 are multiply dependent on each of these independent claims. Nazarenko *et al.* teach nucleic acid probes labeled with **two different** detectable labels (i.e., a pair of different chromophores). Since Nazarenko *et al.* neither teach nor suggest the use of oligonucleotides/primers labeled with only a single type of detectable label having the **same chemical structure**, a *prima facie* case of obviousness cannot be maintained.

Applicants therefore request reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a).

**B. Tyagi *et al.***

Claims 63-65 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tyagi *et al.* Office Action, pages 10-12. Applicants respectfully traverse this rejection.

The present independent claims recite that the oligonucleotides/primers are labeled with only a single type of detectable label having the **same chemical structure**. Claims 63-65 are multiply dependent on each of these independent claims. Tyagi *et al.* teach nucleic acid probes labeled with **two different** detectable labels (i.e., a pair of different chromophores). Since Tyagi *et al.* neither teach nor suggest neither teach nor suggest the use of oligonucleotides/primers labeled with only a single type of detectable label having the **same chemical structure**, a *prima facie* case of obviousness cannot be maintained.

Applicants therefore request reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a).

**C. Nazarenko *et al.* in view of Lee *et al.***

Claims 76-85 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nazarenko *et al.* in view of Lee *et al.* (U.S. Patent No. 5,945,526). Office Action, pages 12-13. Applicants respectfully traverse the rejection.

Claims 76-85 are dependent on claims which recite that one or more oligonucleotides/primers are labeled with only a single type of detectable label having the **same chemical structure**. As discussed above, Nazarenko *et al.* teach nucleic acid probes labeled with **two different** detectable labels (i.e., a pair of different chromophores). Nazarenko *et al.* neither teach nor suggest the use of oligonucleotides/primers labeled with

only a single type of detectable label having the **same chemical structure** as presently claimed. Lee *et al.* do not cure the deficiency in the teaching of Nazarenko *et al.* Thus, a *prima facie* case of obviousness cannot be maintained.

Applicants therefore request reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a).

***D. Tyagi et al. in view of Lee et al.***

Claims 76-85 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tyagi *et al.* in view of Lee *et al.* (U.S. Patent No. 5,945,526). Office Action, pages 13-14. Applicants respectfully traverse the rejection.

Claims 76-85 are dependent on claims which recite that one or more oligonucleotides/primers are labeled with only a single type of detectable label having the **same chemical structure**. As discussed above, Tyagi *et al.* teach nucleic acid probes labeled with **two different** detectable labels (i.e., a pair of different chromophores). Tyagi *et al.* neither teach nor suggest the use of oligonucleotides/primers labeled with only a single type of detectable label having the **same chemical structure** as presently claimed. Lee *et al.* do not cure the deficiency in the teaching of Tyagi *et al.* Thus, a *prima facie* case of obviousness cannot be maintained.

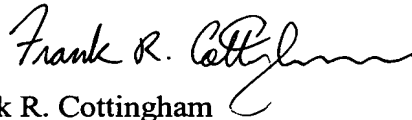
Applicants therefore request reconsideration and withdrawal of the rejection under 35 U.S.C. 103(a).

***Conclusion***

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Frank R. Cottingham", with a stylized flourish at the end.

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